

STATE OF MISSISSIPPI AIR POLLUTION CONTROL PERMIT

TO CONSTRUCT AIR EMISSIONS EQUIPMENT

THIS CERTIFIES THAT

Eka Chemicals Inc
4374 Nashville Ferry Road East
Columbus, Mississippi
Lowndes County

has been granted permission to construct air emissions equipment to comply with the emission limitations, monitoring requirements and other conditions set forth herein. This permit is issued in accordance with the provisions of the Mississippi Air and Water Pollution Control Law (Section 49-17-1 et. seq., Mississippi Code of 1972), and the regulations and standards adopted and promulgated thereunder.

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD



AUTHORIZED SIGNATURE

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Issued: February 13, 2007

Modified: JAN 04 2011

Permit No.: 1680-00005

Part I.

A. GENERAL CONDITIONS

1. This permit is for air pollution control purposes only. (Ref.: APC-S-2, Section I.D)
2. Any activities not identified in the application are not authorized by this permit. (Ref.: Miss. Code Ann. 49-17-29 1.b)
3. The knowing submittal of a permit application with false information may serve as the basis for the Permit Board to void the permit issued pursuant thereto or subject the applicant to penalties for operating without a valid permit pursuant to State Law. (Ref.: APC-S-2, Section II.B.5)
4. It is the responsibility of the applicant/permittee to obtain all other approvals, permits, clearances, easements, agreements, etc., which may be required including, but not limited to, all required local government zoning approvals or permits. (Ref.: APC-S-2, Section I.D.6)
5. The issuance of a permit does not release the permittee from liability for constructing or operating air emissions equipment in violation of any applicable statute, rule, or regulation of state or federal environmental authorities. (Ref.: APC-S-2, Section II.B.7)
6. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit, unless halting or reducing activity would create an imminent and substantial endangerment threatening the public health and safety of the lives and property of the people of this state. (Ref.: APC-S-2, Section II.B.15(a))
7. The permit and/or any part thereof may be modified, revoked, reopened, and reissued, or terminated for cause. Sufficient cause for a permit to be reopened shall exist when an air emissions stationary source becomes subject to Title V. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. (Ref.: APC-S-2, Section II.B.15(b))
8. The permit does not convey any property rights of any sort, or any exclusive privilege. (Ref.: APC-S-2, Section II.B.15(c))
9. The permittee shall furnish to the DEQ within a reasonable time any information the DEQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee shall furnish such records to the DEQ along with a claim of confidentiality.

The permittee may furnish such records directly to the Administrator along with a claim of confidentiality. (Ref.: APC-S-2, Section II.B.15(d))

10. Design and Construction Requirements: The stationary source shall be designed and constructed so as to operate without causing a violation of an Applicable Rules and Regulations, without interfering with the attainment and maintenance of State and National Ambient Air Quality Standards, and such that the emission of air toxics does not result in an ambient concentration sufficient to adversely affect human health and well-being or unreasonably and adversely affect plant or animal life beyond the stationary source boundaries. (Ref.: APC-S-2, Section V.A)
11. Solids Removal: The necessary facilities shall be constructed so that solids removed in the course of control of air emissions may be disposed of in a manner such as to prevent the solids from becoming windborne and to prevent the materials from entering State waters without the proper environmental permits. (Ref.: Miss. Code Ann. 49-17-29)
12. Diversion and Bypass of Air Pollution Controls: The air pollution control facilities shall be constructed such that diversion from or bypass of collection and control facilities is not needed except as provided for in Regulation APC-S-1, "Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants", Section 10. (Ref.: APC-S-1, Section 10)
13. Fugitive Dust Emissions from Construction Activities: The construction of the stationary source shall be performed in such a manner so as to reduce fugitive dust emissions from construction activities to a minimum. (Ref.: APC-S-2, Section V.A.4)
14. Right of Entry: The permittee shall allow the Mississippi Department of Environmental Quality Office of Pollution Control and the Mississippi Environmental Quality Permit Board and/or their representatives upon presentation of credentials:
 - a) To enter upon the permittee's premises where an air emission source is located or in which any records are required to be kept under the terms and conditions of this permit; and
 - b) At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any air emissions. (Ref.: Miss. Code Ann. 49-17-21)
15. Permit Modification or Revocation: After notice and opportunity for a hearing, the Permit Board may modify the permit or revoke it in whole or in part for good cause shown including, but not limited to:
 - a) Persistent violation of any of the terms or conditions of this permit;

- b) Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
- c) A change in federal, state, or local laws or regulations that require either a temporary or permanent reduction or elimination of previously authorized air emission.

(Ref.: APC-S-2, Section II.C)

16. Public Record and Confidential Information: Except for data determined to be confidential under the Mississippi Air & Water Pollution Control Law, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Mississippi Department of Environmental Quality, Office of Pollution Control. (Ref.: Miss. Code Ann. 49-17-39)
17. Permit Transfer: This permit shall not be transferred except upon approval of the Permit Board. (Ref.: APC-S-2, Section XVI.B)
18. Severability: The provisions of this permit are severable. If any provision of the permit, or the application of any provision of the permit to any circumstances, is challenged or held invalid, the validity of the remaining permit provisions and/or portions thereof or their application to other persons or sets of circumstances, shall not be affected thereby. (Ref. APC-S-2, Section I.D.7)
19. Permit Expiration: The permit to construct will expire if construction does not begin within eighteen (18) months from the date of issuance or if construction is suspended for eighteen (18) months or more. (Ref.: APC-S-2, Section V.C.1)
20. Certification of Construction: A new stationary source issued a Permit to Construct cannot begin operation until certification of construction by the permittee. (Ref.: APC-S-2, Section V.D.3)
21. Beginning Operation: Except as prohibited in Part I, Condition 24 of this permit, after certification of construction by the permittee, the Permit to Construct shall be deemed to satisfy the requirement for a permit to operate until the date the application for issuance or modification of the Title V Permit or the application for issuance or modification of the State Permit to Operate, whichever is applicable, is due. This provision is not applicable to a source excluded from the requirement for a permit to operate as provided by APC-S-2, Section XIII.G. (Ref.: APC-S-2, Section V.D.4)
22. Application for a Permit to Operate: Except as otherwise specified in Part I, Condition 24 of this permit, the application for issuance or modification of the State Permit to Operate or the Title V Permit, whichever is applicable, is due twelve (12) months after beginning operation or such earlier date or time as specified in the Permit to Construct. The Permit Board may specify an earlier date or time for submittal of the application. Beginning operation will be assumed to occur upon

certification of construction, unless the permittee specifies differently in writing. (Ref.: APC-S-2, Section V.D.5)

23. Operating Under a Permit to Construct: Except as otherwise specified in Part I, Condition 24 of this permit, upon submittal of a timely and complete application for issuance or modification of a State Permit to Operate or a Title V Permit, whichever is applicable, the applicant may continue to operate under the terms and conditions of the Permit to Construct and in compliance with the submitted application until the Permit Board issues, modifies, or denies the Permit to Operate. (Ref.: APC-S-2, Section V.D.6)
24. Application Requirements for a Permit to Operate for Moderate Modifications: For moderate modifications that require contemporaneous enforceable emissions reductions from more than one emission point in order to “net” out of PSD/NSR, the applicable Title V Permit to Operate or State Permit to Operate must be modified prior to beginning operation of the modified facilities. (Ref.: APC-S-2, Section V.D.7)
25. Compliance Testing: Regarding compliance testing:
- a) The results of any emissions sampling and analysis shall be expressed both in units consistent with the standards set forth in any Applicable Rules and Regulations or this permit and in units of mass per time.
 - b) Compliance testing will be performed at the expense of the permittee.
 - c) Each emission sampling and analysis report shall include but not be limited to the following:
 - (1) detailed description of testing procedures;
 - (2) sample calculation(s);
 - (3) results; and
 - (4) comparison of results to all Applicable Rules and Regulations and to emission limitations in the permit.
- (Ref.: APC-S-2, Section VI.B.3, 4, and 6)

B. GENERAL NOTIFICATION REQUIREMENTS

1. Within fifteen (15) days of beginning actual construction, the permittee must notify DEQ in writing that construction has begun. (Ref.: APC-S-2, Section V.C.2)
2. The permittee must notify DEQ in writing when construction does not begin within eighteen (18) months of issuance or if construction is suspended for eighteen (18) months or more. (Ref.: APC-S-2, Section V.C.3)
3. Upon the completion of construction or installation of an approved stationary source or modification, the applicant shall notify the Permit Board that construction or installation was performed in accordance with the approved plans and specifications on file with the Permit Board. (Ref.: APC-S-2, Section V.D.1)
4. The Permit Board shall be promptly notified in writing of any change in construction from the previously approved plans and specifications or permit. If the Permit Board determines the changes are substantial, it may require the submission of a new application to construct with “as built” plans and specifications. Notwithstanding any provision herein to the contrary, the acceptance of an “as built” application shall not constitute a waiver of the right to seek compliance penalties pursuant to State Law. (Ref.: APC-S-2, Section V.D.2)

Part II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning February 13, 2007, the permittee is authorized to construct air emissions equipment for the emission of air contaminants from Emission Point AB-011, the 127.47 MMBtu/Hr Natural Gas / Hydrogen-fired Steam Boiler equipped with Low-NO_x burners to reduce emissions of nitrogen oxides.

The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified below.

EMISSION LIMITATIONS

Nitrogen Oxides	0.07 lb/MMBtu heat input (3-hour rolling average), not to exceed 8.93 lbs/hr (3-hour rolling average) and 39.1 tons/year (12-month rolling total)
Opacity	40% as determined by EPA Test Method 9, 40 CFR 60, Appendix A.

All test methods specified above shall be those versions, or their approved equivalents, which are in effect February 13, 2007.

FUEL RESTRICTIONS

Fuels other than natural gas and/or hydrogen are prohibited.

NSPS Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units

For Emission Point AB-011, the permittee is subject to and shall comply with the New Source Performance Standards (NSPS) for Industrial-Commercial-Institutional Steam Generating Units (40 CFR Part 60, Subpart Db), and the applicable General Provisions (40 CFR Part 60, Subpart A). (Ref.: 40 CFR 60.40b(a))

NO_x Emission Standard:

For Emission Point AB-011, the permittee shall not cause to be discharged into the atmosphere any gases that contain NO_x (expressed as NO₂) in excess of 0.20 lb/MMBtu heat input (86 ng/J). This emission standard shall apply at all times, including periods of startup, shutdown, or malfunction. Compliance with this emission limit shall be determined on 30-day rolling average basis. (Ref.: 40 CFR 60.44b(l), (h), and (i))

NO_x Monitoring Requirements:

The permittee shall install, calibrate, maintain, and operate CEMS for measuring NO_x and O₂ (or CO₂) emissions discharged to the atmosphere, and shall record the output of the system. The CEMS shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments. The 1-hour average NO_x emission rates measure by the NO_x CEMS shall be expressed in lb/MMBtu heat input and shall be used to calculate the average emission rates under §60.44b(1). The 1-hour average shall be calculated using the data points required under §60.13(h)(2). (Ref.: 40 CFR 60.48b(g)(1), (b)(1), (c), and (d))

The procedures under §60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems. The span value for NO_x shall be 500 ppm. When NO_x emission data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7 or 7A of 40 CFR Part 60, Subpart A, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days. (Ref.: 40 CFR 60.48b(e) and (f))

NO_x Recordkeeping and Reporting Requirements:

The permittee shall record and maintain records of the amounts of each fuel combusted during each day. (Ref.: 40 CFR 60.49b(d)(1))

The permittee shall maintain records of the information required by §60.49b(g)(1)-(10) for each steam generating unit operating day. (Ref.: 40 CFR 60.49b(g))

The permittee shall submit excess emission reports for any excess emissions that occurred during the reporting period. Excess emissions are defined as any calculated 30-day rolling average NO_x emission rate that exceeds the applicable emission limit. (Ref.: 40 CFR 60.49b(h)(2) and (4))

The permittee shall submit semiannual reports containing the information recorded under §60.49b(g). (Ref.: 40 CFR 60.49b(i))

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning February 13, 2007, the permittee is authorized to construct air emissions equipment for emission of air contaminants from Emission Point AB-012, the Natural gas-fired Temporary Steam Boiler with a maximum heat input capacity of 87 MMBTU/Hr

A temporary boiler with a maximum heat input capacity of 87 MMBtu/Hr or less, but greater than or equal to 10 MMBtu/Hr, the air emissions equipment is subject to and shall comply with the New Source Performance Standards (NSPS), as described in 40 CFR 60, Subpart A – *General Provisions*, and the specific requirements outlined in 40 CFR 60, Subpart Dc – *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*.

The specific requirements enumerated below may not encompass all applicable requirements set forth in Subparts A and Dc.

The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified below.

EMISSIONS LIMITATIONS

Nitrogen Oxides	14.53 lbs/hr and 31.38 tons/year, as determined by EPA Test Method 7, 40 CFR 60, Appendix A.
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Opacity	40% as determined by EPA Test Method 9, 40 CFR 60, Appendix A.
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All test methods specified above shall be those versions, or their approved equivalents, which are in effect February 13, 2007.

Emission Point AB-012 is a *temporary boiler* meaning any gaseous or liquid fuel boiler that is designed to, and is capable of, being carried or moved from one location to another. A temporary boiler that remains at a location for more than 180 consecutive days is no longer considered to be a temporary boiler. Any temporary boiler that replaces a temporary boiler at a location and is intended to perform the same or similar function will be included in calculating the consecutive time period.

PART II (Continued)
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

FUEL RESTRICTION

Fuel other than natural gas is prohibited.

OPERATIONAL LIMITATION

Emission Point AB-012 shall not operate or remain on site for more than 180 consecutive days during any period of 12 consecutive calendar months. The temporary boiler shall be brought on site when shutdowns or problems occur with Emission Point AB-011, the 127.47 MMBtu/hr Steam Boiler.

RECORDKEEPING AND REPORTING REQUIREMENTS

For Emission Point AB-012, the permittee shall submit written notification of the date of installation, the date of startup, and the date the temporary boiler was removed off site. The notification shall include the design heat input capacity, the type of fuels combusted, applicability determination for 40 CFR 60, Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, the daily hours of operation and the cumulative total, the maximum hourly nitrogen oxides emission rate and the consecutive 12-month nitrogen oxide emission rate in tons/yr. The notification shall be postmarked by the 30th day following the end of the occurrence.

The permittee shall maintain copies of all records, data, methods used to determine the nitrogen oxides and carbon monoxide emissions rates, and/or notifications on site for a period of at least five (5) years following the date of such records.

SPECIFIC REPORTING AND RECORDKEEPING REQUIREMENTS FOR
40 CFR 60, SUBPART DC

The permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided in 40 CFR 60.7. The notification shall include the information described in §60.48c(a)(1) – (4). (Ref.: 40 CFR 60.48c(a))

The permittee shall record and maintain records of the amounts of each fuel combusted during each day. The permittee shall record and maintain records of the fuels combusted during each calendar month if the unit only burns very low sulfur fuel oil or other liquid or gaseous fuels with potential sulfur dioxide emissions rates of 0.32 lb/MMBtu heat input or less. (Ref.: 40 CFR 60.48c(g))

PART II (Continued)
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

The permittee shall maintain records, on site, for a period of at least five years from the date of such records.

PART III
OTHER REQUIREMENTS

- (1). Upon certification of construction for Emission Point AB-011, the permittee shall provide written notification that operation of Emission Points AB-001 and AB-002, two 90 MMBtu/Hr Boilers, have ceased and the air emission units removed from service. The notification shall include the date of each event.